

10/789,835
SPECIE SEARCH

FILE 'HOME' ENTERED AT 16:10:46 ON 29 JAN 2007

=> file registry
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE
ENTRY
0.21

TOTAL
SESSION
0.21

FILE 'REGISTRY' ENTERED AT 16:10:59 ON 29 JAN 2007
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STRUCTURE FILE UPDATES: 28 JAN 2007 HIGHEST RN 918629-37-5
DICTIONARY FILE UPDATES: 28 JAN 2007 HIGHEST RN 918629-37-5

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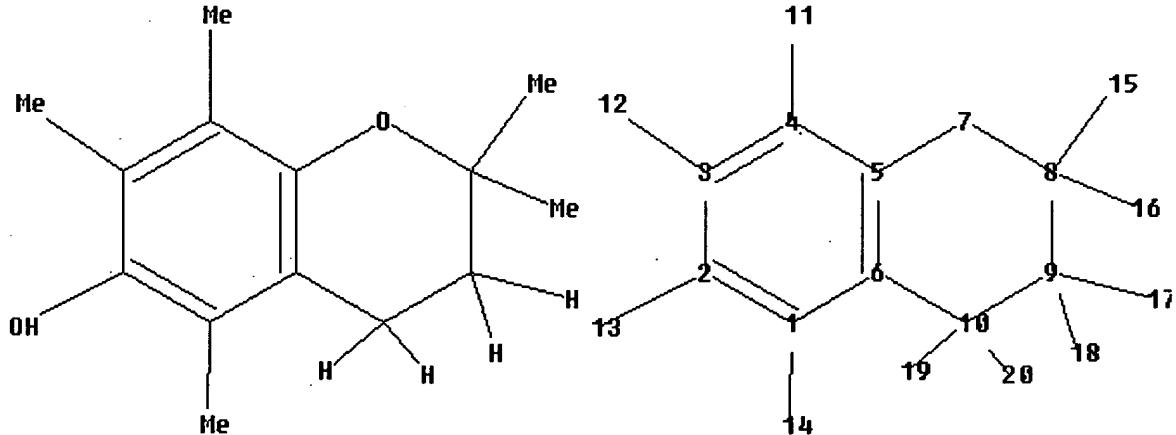
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=>
Uploading C:\Program Files\Stnexp\Queries\10789835_clm6.str



chain nodes :

11 12 13 14 15 16 17 18 19 20

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

1-14 2-13 3-12 4-11 8-15 8-16 9-17 9-18 10-19 10-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10

exact/norm bonds :

2-13 5-7 6-10 7-8 8-9 9-10

exact bonds :

1-14 3-12 4-11 8-15 8-16 9-17 9-18 10-19 10-20

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

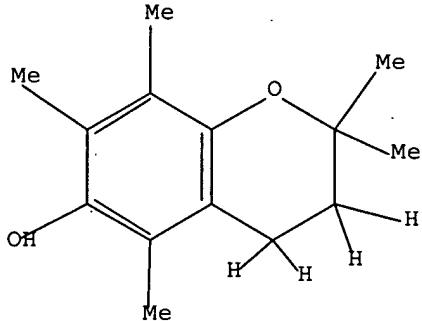
19:CLASS 20:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 16:11:16 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 552 TO ITERATE

100.0% PROCESSED 552 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 9631 TO 12449

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 exa full

FULL SEARCH INITIATED 16:11:22 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 66 TO ITERATE

100.0% PROCESSED 66 ITERATIONS

7 ANSWERS

SEARCH TIME: 00.00.01

L3 7 SEA EXA FUL L1

=> file medline, caplus, wpids, uspatfull

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	58.25	58.46

FILE 'MEDLINE' ENTERED AT 16:11:32 ON 29 JAN 2007

FILE 'CPLUS' ENTERED AT 16:11:32 ON 29 JAN 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE 'WPIDS' ENTERED AT 16:11:32 ON 29 JAN 2007

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FILE 'USPATFULL' ENTERED AT 16:11:32 ON 29 JAN 2007

CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 13

SAMPLE SEARCH INITIATED 16:11:37 FILE 'WPIDS'

SAMPLE SCREEN SEARCH COMPLETED - 62 TO ITERATE

100.0% PROCESSED 62 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 384 TO 856

PROJECTED ANSWERS: 0 TO 0

L4 494 L3

=> s 14 not py>2004

L5 443 L4 NOT PY>2004

=> s 15 and cancer

L6 10 L5 AND CANCER

=> d 16 1-10 ibib, abs, hitstr

L6 ANSWER 1 OF 10 MEDLINE on STN

ACCESSION NUMBER: 2003400986 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 12939470

TITLE: Androgen antagonist activity by the antioxidant moiety of
vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol in human
prostate carcinoma cells.

AUTHOR: Thompson Todd A; Wilding George

CORPORATE SOURCE: University of Wisconsin Comprehensive Cancer Center,
University of Wisconsin-Madison, Madison, Wisconsin 53792,
USA.

SOURCE: Molecular cancer therapeutics, (2003 Aug) Vol. 2, No. 8,
pp. 797-803.

Journal code: 101132535. ISSN: 1535-7163.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200406

ENTRY DATE: Entered STN: 27 Aug 2003

Last Updated on STN: 24 Jun 2004

Entered Medline: 21 Jun 2004

AB Antioxidants, such as vitamin E, are being investigated for efficacy in prostate cancer prevention. In this study, we show that the antioxidant moiety of vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol (PMCol), has antiandrogen activity in prostate carcinoma cells. In the presence of PMCol, the androgen-stimulated biphasic growth curve of LNCaP human prostate carcinoma cells was shifted to the right. The PMCol-induced growth shift was similar to that produced by treatment with the pure antiandrogen bicalutamide (i.e., Casodex), indicative of androgen receptor (AR) antagonist activity. The concentration of PMCol used was below the concentration required to affect cell growth or viability in the absence of androgen. Using an AR binding competition assay, PMCol was found to be a potent antiandrogen in both LNCaP and LAPC4 cells, with an IC₅₀ of approximately 10 micro M against 1 nM R1881 (methyltrienolone; a stable, synthetic androgen). Prostate-specific antigen release from LNCaP cells produced by androgen exposure with either 0.05 or 1.0 nM R1881 was inhibited 100% and 80%, respectively, by 30 micro M PMCol. Also, PMCol inhibited androgen-induced promoter activation in both LNCaP and LAPC4 cells. However, PMCol did not affect AR protein levels, suggesting that the inhibitory effects of PMCol on androgenic pathways were not due to decreased expression of the AR. Therefore, growth modulation by the antioxidant moiety of vitamin E in androgen-sensitive prostate carcinoma cells is due, at least in part, to its potent antiandrogenic activity.

L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:665773 CAPLUS Full-text

DOCUMENT NUMBER: 140:52950

TITLE: Androgen Antagonist Activity by the Antioxidant Moiety of Vitamin E, 2,2,5,7,8-Pentamethyl-6-chromanol in Human Prostate Carcinoma Cells

AUTHOR(S): Thompson, Todd A.; Wilding, George

CORPORATE SOURCE: University of Wisconsin Comprehensive Cancer Center and University of Wisconsin Department of Medicine, University of Wisconsin-Madison, Madison, WI, 53792, USA

SOURCE: Molecular Cancer Therapeutics (2003), 2(8), 797-803
CODEN: MCTOCF; ISSN: 1535-7163

PUBLISHER: American Association for Cancer Research

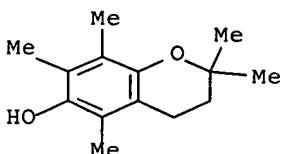
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Antioxidants, such as vitamin E, are being investigated for efficacy in prostate cancer prevention. In this study, we show that the antioxidant moiety of vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol (PMCol), has antiandrogen activity in prostate carcinoma cells. In the presence of PMCol, the androgen-stimulated biphasic growth curve of LNCaP human prostate carcinoma cells was shifted to the right. The PMCol-induced growth shift was similar to that produced by treatment with the pure antiandrogen bicalutamide (i.e., Casodex), indicative of androgen receptor (AR) antagonist activity. The concentration of PMCol used was below the concentration required to affect cell growth or viability in the absence of androgen. Using an AR binding competition assay, PMCol was found to be a potent antiandrogen in both LNCaP and LAPC4 cells, with an IC₅₀ of approx. 10 μ M against 1 nM R1881 (methyltrienolone; a stable, synthetic androgen). Prostate-specific antigen release from LNCaP cells produced by androgen exposure with either 0.05 or 1.0 nM R1881 was inhibited 100% and 80%, resp., by 30 μ M PMCol. Also, PMCol inhibited androgen-induced promoter activation in both LNCaP and LAPC4 cells.

However, PMCol did not affect AR protein levels, suggesting that the inhibitory effects of PMCol on androgenic pathways were not due to decreased expression of the AR. Therefore, growth modulation by the antioxidant moiety of vitamin E in androgen-sensitive prostate carcinoma cells is due, at least in part, to its potent antiandrogenic activity.

IT 950-99-2, 2,2,5,7,8-Pentamethyl-6-chromanol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(androgen antagonist activity by the antioxidant moiety of vitamin E,
2,2,5,7,8-pentamethyl-6-chromanol in human prostate carcinoma cells)
RN 950-99-2 CAPLUS
CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)

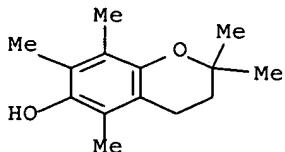


REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:602318 CAPLUS Full-text
DOCUMENT NUMBER: 131:295249
TITLE: Mechanism-based chemopreventive strategies against etoposide-induced acute myeloid leukemia: free radical/antioxidant approach
AUTHOR(S): Kagan, Valerian E.; Yalowich, Jack C.; Borisenko, Grigory G.; Tyurina, Yulia Y.; Tyurin, Vladimir A.; Thampatty, Padmakumari; Fabisiak, James P.
CORPORATE SOURCE: Departments of Environmental and Occupational Health and Pharmacology and University of Pittsburgh Cancer Institute, University of Pittsburgh, Pittsburgh, PA, USA
SOURCE: Molecular Pharmacology (1999), 56(3), 494-506
CODEN: MOPMA3; ISSN: 0026-895X
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Etoposide (VP-16) is extensively used to treat cancer, yet its efficacy is calamitously associated with an increased risk of secondary acute myelogenous leukemia. The mechanisms for the extremely high susceptibility of myeloid stem cells to the leukemogenic effects of etoposide have not been elucidated. We propose a mechanism to account for the etoposide-induced secondary acute myelogenous leukemia and nutritional strategies to prevent this complication of etoposide therapy. We hypothesize that etoposide phenoxyl radicals (etoposide-O) formed from etoposide by myeloperoxidase are responsible for its genotoxic effects in bone marrow progenitor cells, which contain constitutively high myeloperoxidase activity. Here, we used purified human myeloperoxidase, as well as human leukemia HL60 cells with high myeloperoxidase activity and provide evidence of the following. 1. Etoposide undergoes one-electron oxidation to etoposide-O· catalyzed by both purified myeloperoxidase and myeloperoxidase activity in HL60 cells; formation of

etoposide-O· radicals is completely blocked by myeloperoxidase inhibitors, cyanide and azide. 2. Intracellular reductants, GSH and protein sulfhydryls (but not phospholipids), are involved in myeloperoxidase-catalyzed etoposide redox-cycling that oxidizes endogenous thiols; pretreatment of HL60 cells with a maleimide thiol reagent, ThioGlo1, prevents redox-cycling of etoposide-O· radicals and permits their direct ESR detection in cell homogenates. 3. Ascorbate directly reduces etoposide-O·, thus competitively inhibiting etoposide-O·-induced thiol oxidation. Ascorbate also diminishes etoposide-induced topo II-DNA complex formation in myeloperoxidase-rich HL60 cells (but not in HL60 cells with myeloperoxidase activity depleted by pretreatment with succinyl acetone). 4. A vitamin E homolog, 2,2,5,7,8-pentamethyl-6-hydroxychromane, a hindered phenolic compound whose phenoxy radicals do not oxidize endogenous thiols, effectively competes with etoposide as a substrate for myeloperoxidase, thus preventing etoposide-O·-induced redox-cycling. We conclude that nutritional antioxidant strategies can be targeted at minimizing etoposide conversion to etoposide-O·, thus minimizing the genotoxic effects of the radicals in bone marrow myelogenous progenitor cells, i.e., chemoprevention of etoposide-induced acute myelogenous leukemia.

IT 950-99-2
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (mechanism-based chemopreventive strategies against etoposide-induced acute myeloid leukemia: free radical/antioxidant approach)
 RN 950-99-2 CAPLUS
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 10 USPATFULL on STN
 ACCESSION NUMBER: 2004:300069 USPATFULL Full-text
 TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
 INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
 Kline, Kimberly, Austin, TX, UNITED STATES
 Hurley, Laurence, Austin, TX, UNITED STATES
 Gardner, Robb, Austin, TX, UNITED STATES
 Menchaca, Marla, Austin, TX, UNITED STATES
 Yu, Weiping, Austin, TX, UNITED STATES
 Ramanan, Puthucode N., Austin, TX, UNITED STATES
 Liu, Shenquan, Austin, TX, UNITED STATES
 Israel, Karen, Austin, TX, UNITED STATES
 PATENT ASSIGNEE(S): Research Development Foundation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004235938	A1	20041125
APPLICATION INFO.:	US 2003-644418	A1	20030820 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-502592, filed on 11 Feb 2000, GRANTED, Pat. No. US 6770672 Continuation-in-part of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat. No. US 6417223		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071	
NUMBER OF CLAIMS:	30	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	21 Drawing Page(s)	
LINE COUNT:	2556	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; Y is selected from the group consisting of oxygen, nitrogen and sulfur wherein when Y is oxygen or nitrogen, n is 1 and when Y is sulfur, n is 0. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

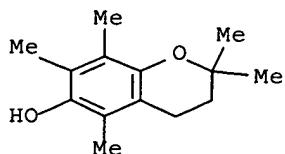
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2

(preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:192666 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

INVENTOR(S): Sanders, Bob G., Austin, TX, United States
 Kline, Kimberly, Austin, TX, United States
 Hurley, Laurence, Austin, TX, United States
 Gardner, Robb, Austin, TX, United States
 Menchaca, Marla, Austin, TX, United States

PATENT ASSIGNEE(S):

Yu, Weiping, Austin, TX, United States
Ramanan, Puthucode N., Austin, TX, United States
Liu, Shenquan, Austin, TX, United States
Israel, Karen, Austin, TX, United States
Research Development Foundation, Carson City, NV,
United States (U.S. corporation)

	NUMBER	KIND	DATE
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PATENT INFORMATION:

US 6770672 B1 20040803

APPLICATION INFO.:

US 2000-502592 20000211 (9)

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 1999-404001, filed
on 23 Sep 1999, now patented, Pat. No. US 6417223,
issued on 9 Jul 2002

	NUMBER	DATE
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PRIORITY INFORMATION:

US 1998-101543P 19980923 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

GRANTED

PRIMARY EXAMINER:

Fonda, Kathleen K.

ASSISTANT EXAMINER:

Maier, Leigh C.

LEGAL REPRESENTATIVE:

Adler, Benjamin Aaron

NUMBER OF CLAIMS:

4

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

18 Drawing Figure(s); 21 Drawing Page(s)

LINE COUNT:

2359

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; Y is selected from the group consisting of oxygen, nitrogen and sulfur wherein when Y is oxygen or nitrogen, n is 1 and when Y is sulfur, n is 0. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

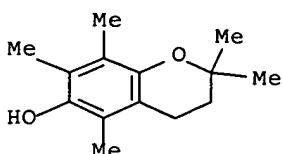
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2, 2,2,5,7,8-Pentamethyl-6-chromanol

(preparation of tocopherols, tocotrienols, other chroman and side chain
derivs. for therapeutic use in prevention and treatment of cancer)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX
NAME)



L6 ANSWER 6 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:127448 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
Kline, Kimberly, Austin, TX, UNITED STATES
Yu, Weiping, Austin, TX, UNITED STATES
PATENT ASSIGNEE(S): Research Development Foundation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004097431	A1	20040520
APPLICATION INFO.:	US 2003-695275	A1	20031028 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-8066, filed on 5 Nov 2001, GRANTED, Pat. No. US 6703384 Continuation-in-part of Ser. No. US 2000-502592, filed on 11 Feb 2000, PENDING Continuation-in-part of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat. No. US 6417223		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, Ph.D., J.D., Adler & Associates, 8011 Candle Lane, Houston, TX, 77071	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	2605	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having a structural formula ##STR1##

where X and Y independently are oxygen, nitrogen or sulfur; R.¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thioester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers or nitrites; R.² and R.³ are hydrogen or R.⁴; R.⁴ is methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide or amine; and R.⁵ is alkenyl; where when Y is nitrogen, said nitrogen is substituted with R.⁶, wherein R.⁶ is hydrogen or methyl. Also provided are methods for treating a cell proliferative disease and for inducing apoptosis in a cell comprising administering this compound is also provided.

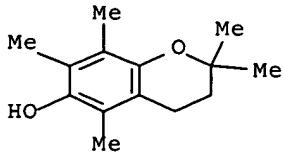
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2

(preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L6 ANSWER 7 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:280579 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
 Kline, Kimberly, Austin, TX, UNITED STATES
 Hurley, Laurence, Austin, TX, UNITED STATES
 Gardner, Robb, Austin, TX, UNITED STATES
 Menchaca, Marla, Austin, TX, UNITED STATES
 Yu, Weiping, Austin, TX, UNITED STATES
 Ramanan, Puthucode N., Austin, TX, UNITED STATES
 Liu, Shenquan, Austin, TX, UNITED STATES
 Israel, Karen, Austin, TX, UNITED STATES

PATENT ASSIGNEE(S): Research Development Foundation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002156024	A1	20021024
	US 6645998	B2	20031111
APPLICATION INFO.:	US 2002-122019	A1	20020412 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat. No. US 6417223		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	2170	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention provides an antiproliferative compound having the structural formula ##STR1##	

wherein X is oxygen, nitrogen or sulfur; R.¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R.² is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.³ is selected from the group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.⁴ is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R.⁵ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided

is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

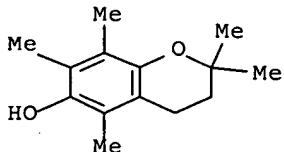
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2

(preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:199098 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
Kline, Kimberly, Austin, TX, UNITED STATES
Yu, Weiping, Austin, TX, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002107207	A1	20020808
	US 6703384	B2	20040309

APPLICATION INFO.: US 2001-8066 A1 20011105 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-502592, filed on 11 Feb 2000, PENDING Continuation-in-part of Ser. No. US 1999-404001, filed on 23 Sep 1999, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071

NUMBER OF CLAIMS: 24

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 12 Drawing Page(s)

LINE COUNT: 2606

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having a structural formula ##STR1##

where X and Y independently are oxygen, nitrogen or sulfur; R.sup.1 is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolic acid, thioester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers or

nitrites; R.sup.2 and R.sup.3 are hydrogen or R.sup.4; R.sup.4 is methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide or amine; and R.sup.5 is alkenyl; where when Y is nitrogen, said nitrogen is substituted with R.sup.6, wherein R.sup.6 is hydrogen or methyl. Also provided are methods for treating a cell proliferative disease and for inducing apoptosis in a cell comprising administering this compound is also provided.

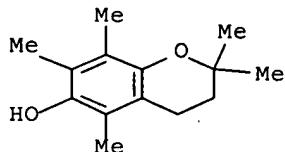
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2, 2,2,5,7,8-Pentamethyl-6-chromanol

(preparation of tocopherols, tocotrienols, other chromans and side chain derivs. as potential antiproliferative, proapoptotic agents for the treatment of cancer)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L6 ANSWER 9 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:168253 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses therof

INVENTOR(S): Sanders, Bob G., Austin, TX, United States
 Kline, Kimberly, Austin, TX, United States
 Hurley, Laurence, Austin, TX, United States
 Gardner, Robb, Austin, TX, United States
 Menchaca, Marla, Austin, TX, United States
 Yu, Weiping, Austin, TX, United States
 Ramanan, Puthucode N., Austin, TX, United States
 Liu, Shenquan, Austin, TX, United States
 Israel, Karen, Austin, TX, United States

PATENT ASSIGNEE(S): Research Development Foundation, Carson City, NV, United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6417223 B1 20020709

APPLICATION INFO.: US 1999-404001 19990923 (9)

NUMBER	DATE
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PRIORITY INFORMATION: US 1998-101542P 19980923 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Wilson, James O.

ASSISTANT EXAMINER: Maier, Leigh C.

LEGAL REPRESENTATIVE: Adler, Benjamin Aaron

NUMBER OF CLAIMS: 3

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)

LINE COUNT: 1959

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; R.¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R.² is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.³ is selected from the group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.⁴ is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R.⁵ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

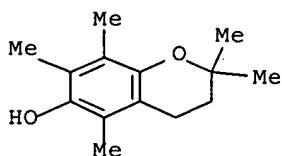
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2

(preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L6 ANSWER 10 OF 10 USPATFULL on STN

ACCESSION NUMBER: 92:55640 USPATFULL Full-text

TITLE: Oxidized diphenylheteroalkanes

INVENTOR(S): Janssen, Bernd, Ludwigshafen, Germany, Federal Republic of

Wuest, Hans-Heiner, Dossenheim, Germany, Federal Republic of

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Ludwigshafen, Germany, Federal Republic of (non-U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 5128479 19920707

APPLICATION INFO.: US 1990-471886 19900129 (7)

NUMBER	DATE
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PRIORITY INFORMATION: DE 1989-3903988 19890210

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 1176

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

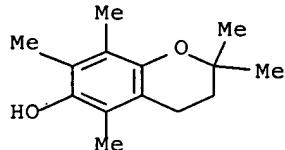
AB Oxidized diphenylheteroalkanes of the formula I ##STR1## where R.¹ to R.⁶ and A have the meanings specified in the description, and the preparation thereof are described. The substances are suitable for controlling diseases and as cosmetic agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2P, 2,2,5,7,8-Pentamethylchroman-6-ol
(preparation and reaction of, in preparation of drugs)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 16:10:46 ON 29 JAN 2007)

FILE 'REGISTRY' ENTERED AT 16:10:59 ON 29 JAN 2007

L1 STRUCTURE UPLOADED
L2 0 S L1
L3 7 S L1 EXA FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 16:11:32 ON 29 JAN 2007

L4 494 S L3
L5 443 S L4 NOT PY>2004
L6 10 S L5 AND CANCER

=> s 15 and "prostate cancer"

2 FILES SEARCHED...

L7 8 L5 AND "PROSTATE CANCER"

=> d 17 1-8 ibib, abs, hitstr

L7 ANSWER 1 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2003400986 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12939470
TITLE: Androgen antagonist activity by the antioxidant moiety of vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol in human prostate carcinoma cells.
AUTHOR: Thompson Todd A; Wilding George

CORPORATE SOURCE: University of Wisconsin Comprehensive Cancer Center,
University of Wisconsin-Madison, Madison, Wisconsin 53792,
USA.

SOURCE: Molecular cancer therapeutics, (2003 Aug) Vol. 2, No. 8,
pp. 797-803.
Journal code: 101132535. ISSN: 1535-7163.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200406

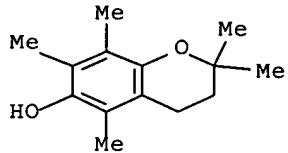
ENTRY DATE: Entered STN: 27 Aug 2003
Last Updated on STN: 24 Jun 2004
Entered Medline: 21 Jun 2004

AB Antioxidants, such as vitamin E, are being investigated for efficacy in prostate cancer prevention. In this study, we show that the antioxidant moiety of vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol (PMCol), has antiandrogen activity in prostate carcinoma cells. In the presence of PMCol, the androgen-stimulated biphasic growth curve of LNCaP human prostate carcinoma cells was shifted to the right. The PMCol-induced growth shift was similar to that produced by treatment with the pure antiandrogen bicalutamide (i.e., Casodex), indicative of androgen receptor (AR) antagonist activity. The concentration of PMCol used was below the concentration required to affect cell growth or viability in the absence of androgen. Using an AR binding competition assay, PMCol was found to be a potent antiandrogen in both LNCaP and LAPC4 cells, with an IC(50) of approximately 10 micro M against 1 nM R1881 (methyltrienolone; a stable, synthetic androgen). Prostate-specific antigen release from LNCaP cells produced by androgen exposure with either 0.05 or 1.0 nM R1881 was inhibited 100% and 80%, respectively, by 30 micro M PMCol. Also, PMCol inhibited androgen-induced promoter activation in both LNCaP and LAPC4 cells. However, PMCol did not affect AR protein levels, suggesting that the inhibitory effects of PMCol on androgenic pathways were not due to decreased expression of the AR. Therefore, growth modulation by the antioxidant moiety of vitamin E in androgen-sensitive prostate carcinoma cells is due, at least in part, to its potent antiandrogenic activity.

L7 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:665773 CAPLUS Full-text
DOCUMENT NUMBER: 140:52950
TITLE: Androgen Antagonist Activity by the Antioxidant Moiety
of Vitamin E, 2,2,5,7,8-Pentamethyl-6-chromanol in
Human Prostate Carcinoma Cells
AUTHOR(S): Thompson, Todd A.; Wilding, George
CORPORATE SOURCE: University of Wisconsin Comprehensive Cancer Center
and University of Wisconsin Department of Medicine,
University of Wisconsin-Madison, Madison, WI, 53792,
USA
SOURCE: Molecular Cancer Therapeutics (2003), 2(8), 797-803
CODEN: MCTOCF; ISSN: 1535-7163
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antioxidants, such as vitamin E, are being investigated for efficacy in prostate cancer prevention. In this study, we show that the antioxidant moiety of vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol (PMCol), has antiandrogen activity in prostate carcinoma cells. In the presence of PMCol, the androgen-stimulated biphasic growth curve of LNCaP human prostate carcinoma cells was shifted to the right. The PMCol-induced growth shift was similar to that produced by treatment with the pure antiandrogen bicalutamide

(i.e., Casodex), indicative of androgen receptor (AR) antagonist activity. The concentration of PMCol used was below the concentration required to affect cell growth or viability in the absence of androgen. Using an AR binding competition assay, PMCol was found to be a potent antiandrogen in both LNCaP and LAPC4 cells, with an IC₅₀ of approx. 10 μ M against 1 nM R1881 (methyltrienolone; a stable, synthetic androgen). Prostate-specific antigen release from LNCaP cells produced by androgen exposure with either 0.05 or 1.0 nM R1881 was inhibited 100% and 80%, resp., by 30 μ M PMCol. Also, PMCol inhibited androgen-induced promoter activation in both LNCaP and LAPC4 cells. However, PMCol did not affect AR protein levels, suggesting that the inhibitory effects of PMCol on androgenic pathways were not due to decreased expression of the AR. Therefore, growth modulation by the antioxidant moiety of vitamin E in androgen-sensitive prostate carcinoma cells is due, at least in part, to its potent antiandrogenic activity.

IT 950-99-2, 2,2,5,7,8-Pentamethyl-6-chromanol
 RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (androgen antagonist activity by the antioxidant moiety of vitamin E, 2,2,5,7,8-pentamethyl-6-chromanol in human prostate carcinoma cells)
 RN 950-99-2 CAPLUS
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 8 USPATFULL on STN
 ACCESSION NUMBER: 2004:300069 USPATFULL Full-text
 TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
 INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
 Kline, Kimberly, Austin, TX, UNITED STATES
 Hurley, Laurence, Austin, TX, UNITED STATES
 Gardner, Robb, Austin, TX, UNITED STATES
 Menchaca, Marla, Austin, TX, UNITED STATES
 Yu, Weiping, Austin, TX, UNITED STATES
 Ramanan, Puthucode N., Austin, TX, UNITED STATES
 Liu, Shenquan, Austin, TX, UNITED STATES
 Israel, Karen, Austin, TX, UNITED STATES
 PATENT ASSIGNEE(S): Research Development Foundation (U.S. corporation)

NUMBER	KIND	DATE
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 PATENT INFORMATION: US 2004235938 A1 20041125
 APPLICATION INFO.: US 2003-644418 A1 20030820 (10)
 RELATED APPLN. INFO.: Division of Ser. No. US 2000-502592, filed on 11 Feb 2000, GRANTED, Pat. No. US 6770672 Continuation-in-part of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat. No. US 6417223

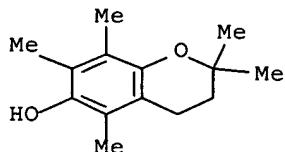
NUMBER	DATE

PRIORITY INFORMATION:	US 1998-101542P 19980923 (60)
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071
NUMBER OF CLAIMS:	30
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	21 Drawing Page(s)
LINE COUNT:	2556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.	
AB	The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; Y is selected from the group consisting of oxygen, nitrogen and sulfur wherein when Y is oxygen or nitrogen, n is 1 and when Y is sulfur, n is 0. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2 (preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)
 RN 950-99-2 USPATFULL
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L7 ANSWER 4 OF 8 USPATFULL on STN
 ACCESSION NUMBER: 2004:192666 USPATFULL Full-text
 TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
 INVENTOR(S): Sanders, Bob G., Austin, TX, United States
 Kline, Kimberly, Austin, TX, United States
 Hurley, Laurence, Austin, TX, United States
 Gardner, Robb, Austin, TX, United States
 Menchaca, Marla, Austin, TX, United States
 Yu, Weiping, Austin, TX, United States
 Ramanan, Puthucode N., Austin, TX, United States
 Liu, Shenquan, Austin, TX, United States
 Israel, Karen, Austin, TX, United States
 PATENT ASSIGNEE(S): Research Development Foundation, Carson City, NV, United States (U.S. corporation)

NUMBER	KIND	DATE
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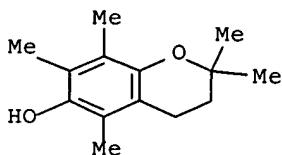
PATENT INFORMATION: US 6770672 B1 20040803
 APPLICATION INFO.: US 2000-502592 20000211 (9)
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-404001, filed
 on 23 Sep 1999, now patented, Pat. No. US 6417223,
 issued on 9 Jul 2002

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101543P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Fonda, Kathleen K.	
ASSISTANT EXAMINER:	Maier, Leigh C.	
LEGAL REPRESENTATIVE:	Adler, Benjamin Aaron	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	18 Drawing Figure(s); 21 Drawing Page(s)	
LINE COUNT:	2359	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention provides an antiproliferative compound having the structural formula ##STR1##	

wherein X is oxygen, nitrogen or sulfur; Y is selected from the group consisting of oxygen, nitrogen and sulfur wherein when Y is oxygen or nitrogen, n is 1 and when Y is sulfur, n is 0. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2, 2,2,5,7,8-Pentamethyl-6-chromanol
 (preparation of tocopherols, tocotrienols, other chroman and side chain
 derivs. for therapeutic use in prevention and treatment of cancer)
 RN 950-99-2 USPATFULL
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX
 NAME)



L7 ANSWER 5 OF 8 USPATFULL on STN
 ACCESSION NUMBER: 2004:127448 USPATFULL Full-text
 TITLE: Tocopherols, tocotrienols, other chroman and side chain
 derivatives and uses thereof
 INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
 Kline, Kimberly, Austin, TX, UNITED STATES
 Yu, Weiping, Austin, TX, UNITED STATES
 PATENT ASSIGNEE(S): Research Development Foundation (U.S. corporation)

NUMBER	KIND	DATE
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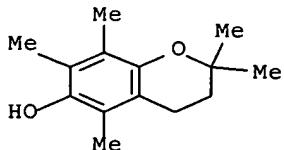
PATENT INFORMATION: US 2004097431 A1 20040520
 APPLICATION INFO.: US 2003-695275 A1 20031028 (10)
 RELATED APPLN. INFO.: Division of Ser. No. US 2001-8066, filed on 5 Nov 2001,
 GRANTED, Pat. No. US 6703384 Continuation-in-part of
 Ser. No. US 2000-502592, filed on 11 Feb 2000, PENDING
 Continuation-in-part of Ser. No. US 1999-404001, filed
 on 23 Sep 1999, GRANTED, Pat. No. US 6417223

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, Ph.D., J.D., Adler & Associates, 8011 Candle Lane, Houston, TX, 77071	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	2605	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention provides an antiproliferative compound having a structural formula ##STR1##	

where X and Y independently are oxygen, nitrogen or sulfur; R.¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thioester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers or nitrites; R.² and R.³ are hydrogen or R.⁴; R.⁴ is methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide or amine; and R.⁵ is alkenyl; where when Y is nitrogen, said nitrogen is substituted with R.⁶, wherein R.⁶ is hydrogen or methyl. Also provided are methods for treating a cell proliferative disease and for inducing apoptosis in a cell comprising administering this compound is also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2
 (preparation of tocopherols, tocotrienols, other chroman and side chain
 derivs. for use as antitumor agents and for inducing cell apoptosis)
 RN 950-99-2 USPATFULL
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX
 NAME)



L7 ANSWER 6 OF 8 USPATFULL on STN
 ACCESSION NUMBER: 2002:280579 USPATFULL Full-text
 TITLE: Tocopherols, tocotrienols, other chroman and side chain

INVENTOR(S) : derivatives and uses thereof
Sanders, Bob G., Austin, TX, UNITED STATES
Kline, Kimberly, Austin, TX, UNITED STATES
Hurley, Laurence, Austin, TX, UNITED STATES
Gardner, Robb, Austin, TX, UNITED STATES
Menchaca, Marla, Austin, TX, UNITED STATES
Yu, Weiping, Austin, TX, UNITED STATES
Ramanan, Puthucode N., Austin, TX, UNITED STATES
Liu, Shenquan, Austin, TX, UNITED STATES
Israel, Karen, Austin, TX, UNITED STATES
PATENT ASSIGNEE(S) : Research Development Foundation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002156024	A1	20021024
	US 6645998	B2	20031111
APPLICATION INFO.:	US 2002-122019	A1	20020412 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat. No. US 6417223		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	2170	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention provides an antiproliferative compound having the structural formula ##STR1##	

wherein X is oxygen, nitrogen or sulfur; R.¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R.² is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.³ is selected from the group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.⁴ is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R.⁵ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

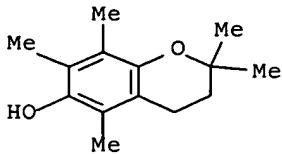
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2

(preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



L7 ANSWER 7 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2002:199098 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

INVENTOR(S): Sanders, Bob G., Austin, TX, UNITED STATES
Kline, Kimberly, Austin, TX, UNITED STATES
Yu, Weiping, Austin, TX, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002107207	A1	20020808
	US 6703384	B2	20040309
APPLICATION INFO.:	US 2001-8066	A1	20011105 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-502592, filed on 11 Feb 2000, PENDING Continuation-in-part of Ser. No. US 1999-404001, filed on 23 Sep 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101542P	19980923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	12 Drawing Page(s)	
LINE COUNT:	2606	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having a structural formula ##STR1##

where X and Y independently are oxygen, nitrogen or sulfur; R.¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers or nitrites; R.² and R.³ are hydrogen or R.⁴; R.⁴ is methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide or amine; and R.⁵ is alkenyl; where when Y is nitrogen, said nitrogen is substituted with R.⁶, wherein R.⁶ is hydrogen or methyl. Also provided are methods for treating a cell proliferative disease and for inducing apoptosis in a cell comprising administering this compound is also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

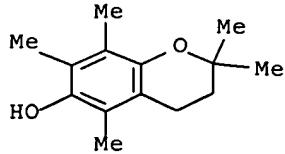
IT 950-99-2, 2,2,5,7,8-Pentamethyl-6-chromanol

(preparation of tocopherols, tocotrienols, other chromans and side chain derivs. as potential antiproliferative, proapoptotic agents for the

treatment of cancer)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX
NAME)



L7 ANSWER 8 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2002:168253 USPATFULL Full-text

TITLE: Tocopherols, tocotrienols, other chroman and side chain derivatives and uses therof

INVENTOR(S): Sanders, Bob G., Austin, TX, United States
Kline, Kimberly, Austin, TX, United States
Hurley, Laurence, Austin, TX, United States
Gardner, Robb, Austin, TX, United States
Menchaca, Marla, Austin, TX, United States
Yu, Weiping, Austin, TX, United States
Ramanan, Puthucode N., Austin, TX, United States
Liu, Shenquan, Austin, TX, United States
Israel, Karen, Austin, TX, United States
Research Development Foundation, Carson City, NV,
United States (U.S. corporation)

PATENT ASSIGNEE(S):

NUMBER KIND DATE

PATENT INFORMATION: US 6417223 B1 20020709

APPLICATION INFO.: US 1999-404001 19990923 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-101542P 19980923 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Wilson, James O.

ASSISTANT EXAMINER: Maier, Leigh C.

LEGAL REPRESENTATIVE: Adler, Benjamin Aaron

NUMBER OF CLAIMS: 3

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)

LINE COUNT: 1959

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; R¹ is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R² is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R³ is selected from the

group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.sup.4 is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R.sup.5 is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

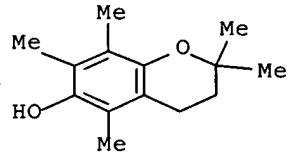
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 950-99-2

(preparation of tocopherols, tocotrienols, other chroman and side chain derivs. for use as antitumor agents and for inducing cell apoptosis)

RN 950-99-2 USPATFULL

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,2,5,7,8-pentamethyl- (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 16:10:46 ON 29 JAN 2007)

FILE 'REGISTRY' ENTERED AT 16:10:59 ON 29 JAN 2007

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 7 S L1 EXA FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 16:11:32 ON 29 JAN 2007

L4 494 S L3

L5 443 S L4 NOT PY>2004

L6 10 S L5 AND CANCER

L7 8 S L5 AND "PROSTATE CANCER"

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
110.25	168.71

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-2.34	-2.34

STN INTERNATIONAL LOGOFF AT 16:16:00 ON 29 JAN 2007